

# BOVILIS<sup>®</sup> Clostridial Vaccines



**MINUTE**

## What is a Clostridial Disease?

- Clostridia are a class of bacteria that form spores and are commonly found in soils and in the digestive tracts of animals.
- Cattle can be exposed to these spores through eating contaminated feed, through contaminated pasture and through open wounds.
- There are three major types of clostridial diseases: hepatic (liver) group, intestinal group, and muscle group.

### Hepatic Group

- Includes *C. novyi* (Black Disease), and *C. haemolyticum* (Red Water)
- Black disease occurs from liver necrosis and blood vessel damage (flukes), and produces a toxin that causes rapid death, usually within 48 hours.
- Red Water also occurs from liver necrosis and produces toxins that destroy red blood cells, resulting in red urine and death within 48 hours.

### Intestinal Group

- Includes: *C. perfringens* Types B, C & D (Enterotoxemia)
- This group produces toxins that are absorbed into the cattle's body from the intestines.
- Stress can activate the disease and nursing calves who overeat can also trigger the disease when excessive milk spills over from their stomach.

### Muscle Group

- Includes: *C. chauvoei* (Blackleg), *C. septicum* (Malignant Edema), and *C. sordellii* (Sudden Death Syndrome)
- These organisms produce toxins arising from bacterial growth in necrotic/bruised tissue.
- Blackleg is nearly 100% fatal and typically starts after a deep bruise or injury and can result in muscle and/or heart lesions and death.

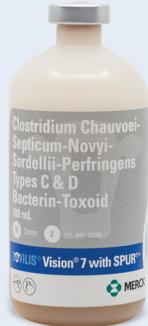
Clostridial Vaccines	Blackleg	Malignant Edema	Sordellii	Black Disease	Enterotoxemia	Red Water	Tetanus	Somni
BOVILIS <sup>®</sup> VISION <sup>®</sup> 7*	●	●	●	●	●			●*
BOVILIS <sup>®</sup> VISION <sup>®</sup> 8*	●	●	●	●	●	●		●*
BOVILIS <sup>®</sup> CAVALRY <sup>®</sup> 9	●	●	●	●	●	●	●	
BOVILIS <sup>®</sup> COVEXIN <sup>®</sup> 8	●	●		●	●	●	●	
BOVILIS <sup>®</sup> VISION <sup>®</sup> CD-T					●		●	

\*(with optional Somni available in VISION<sup>®</sup> 7 SOMNUS or VISION<sup>®</sup> 8 SOMNUS)

# BOVILIS<sup>®</sup> Clostridial Vaccines



**MINUTE**

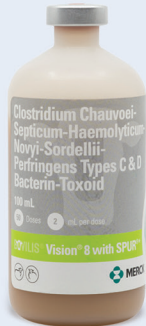


## BOVILIS<sup>®</sup> 2 mL DOSE SQ VISION<sup>®</sup> 7 WITH SPUR<sup>®</sup>

### Shown effective against:

- *Clostridium chauvoei* (Blackleg)
- *C. sordellii*
- *C. septicum* (Malignant Edema)
- *C. perfringens* Types C & D (Enterotoxemia)
- *C. novyi* (Black Disease)

10 dose	UIN: 069130 UPC: 662858219586
50 dose	UIN: 069131 UPC: 662858229585
250 dose	UIN: 069132 UPC: 662858239584

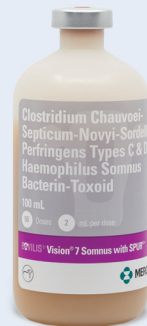


## BOVILIS<sup>®</sup> 2 mL DOSE SQ VISION<sup>®</sup> 8 WITH SPUR<sup>®</sup>

### Shown effective against:

- *Clostridium chauvoei* (Blackleg)
- *C. perfringens* Types C & D (Enterotoxemia)
- *C. septicum* (Malignant Edema)
- *C. haemolyticum* (Red Water)
- *C. novyi* (Black Disease)
- *C. sordellii*

10 dose	UIN: 069136 UPC: 662858095920
50 dose	UIN: 069137 UPC: 662858433296

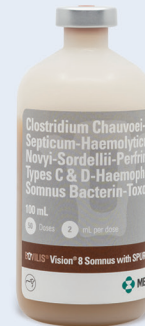


## BOVILIS<sup>®</sup> 2 mL DOSE SQ VISION<sup>®</sup> 7 SOMNUS WITH SPUR<sup>®</sup>

### Shown effective against:

- *Clostridium chauvoei* (Blackleg)
- *C. perfringens* Types C & D (Enterotoxemia)
- *C. septicum* (Malignant Edema)
- *C. novyi* (Black Disease)
- *C. sordellii*
- *Haemophilus somnus*

10 dose	UIN: 069105 UPC: 662858096026
50 dose	UIN: 069106 UPC: 662858023893
250 dose	UIN: 069107 UPC: 662858023992



## BOVILIS<sup>®</sup> 2 mL DOSE SQ VISION<sup>®</sup> 8 SOMNUS WITH SPUR<sup>®</sup>

### Shown effective against:

- *Clostridium chauvoei* (Blackleg)
- *C. perfringens* Types C & D (Enterotoxemia)
- *C. septicum* (Malignant Edema)
- *C. haemolyticum* (Red Water)
- *C. novyi* (Black Disease)
- *C. sordellii*
- *Haemophilus somnus*

10 dose	UIN: 069117 UPC: 662858096125
50 dose	UIN: 069118 UPC: 662858040197



## BOVILIS<sup>®</sup> 5 mL DOSE SQ COVEXIN<sup>®</sup> 8

### Shown effective against:

- *Clostridium chauvoei* (Blackleg)
- *C. haemolyticum*
- *C. septicum* (Malignant Edema)
- *C. tetani* (Tetanus)
- *C. novyi* (Black Disease)
- *C. perfringens* Types C & D (Enterotoxemia)

10 dose	UIN: 067697 UPC: 662858676976
50 dose	UIN: 067696 UPC: 662858676969

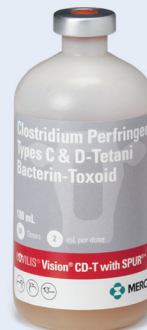


## BOVILIS<sup>®</sup> 2 mL DOSE SQ CAVALRY<sup>®</sup> 9

### Shown effective against:

- *Clostridium chauvoei* (Blackleg)
- *C. perfringens* Types C & D (Enterotoxemia)
- *C. septicum* (Malignant Edema)
- *C. haemolyticum* (Red Water)
- *C. novyi* (Black Disease)
- *C. sordellii*
- *C. tetani* (Tetanus)

10 dose	UIN: 067691 UPC: 662858676914
50 dose	UIN: 058246 UPC: 662858582468
125 dose	UIN: 067694 UPC: 662858676945



## BOVILIS<sup>®</sup> 2 mL DOSE SQ VISION<sup>®</sup> CD-T WITH SPUR<sup>®</sup>

### Shown effective against:

- *Clostridium tetani* (Tetanus)
- *C. perfringens* Types C & D (Enterotoxemia)

50 dose	UIN: 069096 UPC: 662858012798
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### Test Your Knowledge

#### 1. What are the major types of clostridial diseases?

- ☐ A Hepatic Group
- ☐ B Intestinal Group
- ☐ C Muscle Group
- ☐ D All of the Above

#### 2. True or False: Clostridial organisms are normal inhabitants of cattle.

- ☐ A True
- ☐ B False

#### 3. The intestinal group produces toxins that are absorbed into what part of the cattle's body?

- ☐ A Blood Vessels
- ☐ B Eyes
- ☐ C Intestines
- ☐ D Liver

Answer Key: 1: All of the Above, 2: True, 3: Intestines